SECTION 619
REMOVAL OF STRUCTURES AND OBSTRUCTIONS

619.01. DESCRIPTION.

This work shall consist of the removal—wholly or in part—and satisfactory disposal of all buildings, bridges, culverts, fences, structures, old pavements, abandoned pipe lines, and any other obstructions which are designated for removal. It shall also include the salvaging of designated materials and backfilling the resulting trenches, holes, and pits.

This work, when specified, shall also consist of removing designated traffic signal and highway lighting items, such as pole assemblies, luminaries, pull boxes, power supplies, signal heads, controllers, and other related electrical equipment; these shall be delivered to a location specified on the Plans and in a manner approved by the Engineer. This work shall also consist of removing abandoned items and restoring the site to match the surrounding conditions.

When the proposal does not include pay items for removal of structures and obstructions as set out in this Section, the cost of such work shall be included in other items.

619.04. CONSTRUCTION METHODS.

(a) **General.** Raze, remove, and dispose of all buildings and foundations, structures, fences, and other obstructions, any portions of which are on the right-of-way—except utilities and those for which other provisions have been made for removal.

NOTE: When one part of or portion of a system or configuration is removed, the removal of that one part or portion shall be performed in such a manner that the remaining parts or portions shall continue to operate or function as previously intended.

Remove all designated salvable material without unnecessary damage in sections or pieces which may be readily transported, and store them at specified places within the project limits. Destroy unusable perishable material. Dispose of nonperishable material outside the limits of view from the project with written permission of the property owner on whose property the material is placed. Furnish the Engineer with copies of all agreements with property owners. Fill basements or cavities left by structure removal to the level of the surrounding ground, and if within the prism of construction, compact them in accordance with Subsection 202.02(b) and (d). Break up basement floors in a manner acceptable to the Engineer to provide adequate drainage from the basement.

When the work includes or involves traffic signals or highway lighting, carefully disconnect the item to be removed from the existing footing, conduit, and wiring system, and carefully remove the item or assembly so that it may be stored for future use or reset.

NOTE: The Contractor shall be responsible for damage to the removed item as a result of negligence and shall repair or replace the damaged item to the satisfaction of the Engineer.

(b) **Removal of Bridges, Culverts and other Existing Structures.** Do not remove bridges and culverts in use by traffic until satisfactory arrangements have been made to accommodate traffic.

Removal of existing structures when shown on the Plans shall be in accordance with Subsection 104.09.

(1) When structures are to remain the property of the State, the method of dismantling steel superstructure and wood bridges shall insure the material against unnecessary damage. Before dismantling, match mark steel members for reerection purposes by painting them and by using steel stencils in a manner approved by the Bridge Engineer. Dismantle steel members at the original field splices and support them on falsework during the operation of dismantling, or otherwise dismantle them in a manner and method approved by the Bridge Engineer.

NOTE: Any steel damaged shall be replaced or satisfactorily repaired by the Contractor without compensation.

Cut piers, abutments, and piling at the ground line, or in case of channel change, at the elevation of the channel excavation shown on the Plans.

Stack salvaged lumber, structural steel, etc. on the right-of-way outside of the ditch line in a neat and workmanlike manner.

Break up old concrete and other similar materials and place them in the fill as specified for placing solid rock in fills, or otherwise dispose of them as directed by the Engineer.

Unless otherwise directed, remove the substructures of existing structures down to the natural stream bottom; remove those parts outside of the stream down 1 foot (0.3 meter) below natural ground surface. Where such portions of existing structures lie wholly or in part within the limits for a new structure, remove them as necessary to accommodate the construction of the proposed structure.

NOTE: In no case shall material be left in the channel.

When blasting or other operations necessary for the removal of an existing structure or obstruction which may damage new construction are necessary, complete them prior to placing the new work.

(2) When structures or material in structures are to become the property of the Contractor, remove and dispose of the material in accordance with Subsection 104.10. Remove piers, abutments, piling, and substructures as specified in (l) above.

(c) **Removal of Culvert and Sewer Pipe.** Unless otherwise provided, carefully remove all salvable culvert and sewer pipe, taking every precaution to avoid breaking and damaging the pipe. If pipes are to be relaid, remove and store them so that there will be no loss or damage before relaying.

NOTE: The Contractor will be required to replace sections lost from storage or damaged by negligence or by use of improper methods.

(d) **Removal of Pavement, Sidewalks, Curbs, Etc.** All concrete pavement, base course, sidewalks, curbs, gutters, etc. designated for removal shall be broken into pieces weighing not more than 150 pounds (68 kilograms); stockpile them at designated locations shown on the Plans for use by the Department or in a manner approved by the Engineer.

NOTE: There will be no separate payment for excavating, removal of structures and obstructions, or for backfilling and compacting the remaining cavity.

When the removal of asphalt concrete or portland cement concrete pavement is specified, saw the joint in a manner approved by the Engineer. Sawing shall be reasonably true to line and the depth of sawing shall be such that when removing the material there will be no undue underbreakage or shattering of the adjacent area.

(e) **Structures Abandoned.** Break off existing structures which are to be abandoned, removing them to a depth of not less than 6 inches (150 mm) below the foundation grade of new structure.

When sewer lines, water lines, etc. are to be abandoned, tightly plug them at each end with concrete in a manner approved by the Engineer.

Remove manholes and similar structures to be abandoned to the depth specified, fill the with suitable material, and compact them in accordance with Subsection 202.02. If the structure abandoned and so backfilled is to be under paving or another structure, the backfill material shall be tamped in uniform layers not exceeding 6 inches (150 mm) in depth and compacted as specified in Subsection 202.02.

If the structure is not under paving or other structures, settlements may be obtained by thoroughly flushing with water during backfill operations.

(f) **Disposal of Materials.** Any abandoned concrete footing, concrete apron, conduit, and other miscellaneous material shall become the property of the Contractor and shall be removed and disposed of in a manner approved by the Engineer. Materials such as drop inlet grates and frames, manhole covers and frames, concrete or clay pipe, water pipe, goosenecks, valves, stops, valve boxes, or any material of value shall become the property of the Contractor, unless the Plans or Special Provisions provide otherwise for their disposal.

619.05. METHOD OF MEASUREMENT.

When the Contract stipulates that payment will be made for removal of *structures and obstruction* on a lump sum basis, the pay item—removal of obstructions—will include all structures and obstructions encountered within the right-of-way in accordance with the provisions of this Section. Where the proposal stipulates that payment will be made for the *removal of (specific items)* on a unit basis, measurement will be made by the unit stipulated in the Contract.

When such work is not separately classified for payment on the Plans or in the Proposal, it will be considered as incidental work and will not be paid for directly, but the cost will be included in the contract unit price for other items of work.

When stipulated as a pay item, the length of pipe removed will be measured in linear feet (meters) computed by **(1)** multiplying the number of commercial lengths removed by the nominal laying length or by **(2)** measuring the pipe in place prior to removal if practicable.

When *sawing pavement* is shown on the Plans as a pay item, it will be measured by the linear foot (meter).

619.06. BASIS OF PAYMENT.

The accepted quantities of items, measured as provided above, will be paid for at the contract unit price bid as follows:

(A) REMOVAL OF STRUCTURES AND OBSTRUCTIONS ....LUMP SUM
(B) REMOVAL OF (SPECIFIC ITEM) ....LINEAR FOOT (METER)
..... SQUARE YARDS (SQUARE METER)
..... CUBIC YARDS(CUBIC METER)
..... .LUMP SUM, EACH
(C) SAWING PAVEMENT ..... LINEAR FOOT (METER)
(D) REMOVAL OF EXISTING BRIDGE STRUCTURE.. ..... LUMP SUM

Such payment shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified. The price shall also include salvage of materials removed, their custody, preservation, storage on the right-of-way, and disposal as provided herein. There will be no separate payment for the excavation, removal, disposal, backfilling, and compacting of the cavity created by the removal of these items.

SECTION 622
PIPE RAILING AND MISCELLANEOUS PIPE WORK

622.01. DESCRIPTION.

This work shall consist of furnishing and erecting pipe railing with pipe posts, pipe railing with concrete posts, or miscellaneous work in accordance with these Specifications and in reasonably close conformity with the design, lines, grades, and dimensions shown on the Plans or established by the Engineer.

622.02. MATERIALS.

Materials shall meet the requirements of Subsection 732.02.

When standard black steel pipe is used, it shall be painted with two coats of aluminum paint (finish field coat) in accordance with Subsection 730.02.

Concrete posts, when specified, shall be in accordance with Section 504. Reinforcement shall be in accordance with Subsection 723.01 or 723.02.

622.04. CONSTRUCTION METHODS.

(a) **Pipe Railing.** Submit shop drawings of the Railing details. Allow ten days for approval.

Join the rail pipe to the post with fittings as shown on the Plans. Make splices in the rail as male/female connections so that no dimension will exceed the nominal outside dimension of the rail. Approved methods of welding will be permitted.

Secure each railing post in position by means of such fittings as specified on the Plans.